To: Werner, Lora[Werner.Lora@epa.gov]
From: Smith, Bonnie
Sent: Thur 2/13/2014 3:25:20 PM
Subject: Re: WV Coal Slurry report links

Many thanks, Lora.

From: Werner, Lora
Sent: Thursday, February 13, 2014 9:20:23 AM
To: Casillas, Laura; Matlock, Dennis; Ventura, Dominic; Burns, Francis; Williams, Jacqueline; Smith, Bonnie; Kelly, Jack (R3 Phila.); Ferrell, Mark; Wisniewski, Patti-Kay; Daniel, Kevin; Arguto, William; Wright, Dave; Santiago, Cindy; Matsinger, Josie; Markiewicz, Karl; Steuteville, William; Armstrong, Joan; Welsh, Mike; Rose, Kenneth; Taylor, Trish; Marzulli, Linda; Miller, Linda; Price-Fay, Michelle; Helverson, Robert; binetti, victoria; Adam E. Hamrick; Heron, Donna; Seneca, Roy; Sternberg, David
Subject: WV Coal Slurry report links

In case useful to any of you also working on the Patriot spill. I think the take home is env investigations have been for traditional inorganic and organic chemicals, and the mystery "proprietary" chemicals like MCHM and "Froth 499" etc have not been part of analyte lists.

Main Report:
https://www.wvdhhr.org/oehs/documents/DEP.Coal.Slurry.Report.pdf

"No universal tracer was found to indicate the presence of coal slurry as distinguished from other mining activities on surface and groundwater. Slurry is similar to coal in its composition. Because manufacturers of the products often do not identify proprietary chemical compositions, there is insufficient information on the chemicals used in the coal preparation process. It is recommended that all chemicals used in the coal preparation process be fully detailed for operations that are permitted to inject slurry."
...

"An analysis of the chemical composition of coal slurry, including an inventory of organic and inorganic constituents was conducted at six sampling locations across the state. Solid and liquid components of the slurry were analyzed for more than 175 chemical constituents."
...

"The listing is a result of numerous conversations with analytical chemists in regulatory authorities within West Virginia and in surrounding States. In addition, various publications and presentations were evaluated and several websites were consulted in developing the list."
...

"Elevated levels of metals and organic compounds were found in the coal slurry solids. One such metal, strontium, was consistently elevated at all sample locations."
...

"Some organic compounds that were detected in the Eagle Seam slurry were also detected in the mine discharge. Certain organic compounds were found in the slurry liquid, but not in the slurry solids. Butanol, naphthalene and acetone were detected in the coal slurry liquid and at the mine dewatering borehole; butanol is a UIC-authorized chemical that is used at the Panther preparation plant. The data also shows the occurrence of naphthalene in the slurry solids. These three chemicals are presumed to originate from the Panther coal preparation process. The presence of butanol in both the slurry and the mine discharge indicates that some slurry constituents are migrating west-southwest downgradient from the injection holes, through the mine pool to the mine dewatering borehole. However, water quality data from below the mine discharge does not demonstrate that the receiving stream, Wet Branch, has been affected by slurry-influenced elevated metals or organic compounds."

WVU health evaluation of coal slurry report:
http://wvwri.org/wp-content/uploads/2012/06/Coal-Slurry-Injection-Phase-II-Final-Report.pdf

Full Coal Slurry report w/Appendices, including table of analytes:
http://wvwri.org/programs-and-projects/retired-programs/geo-22/

Thanks, Lora

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